

METHOD AND APPARATUS FOR FRAC- TURING BRITTLE MATERIALS BY THER- MAL STRESSING

Abstract

A method of fracturing or breaking rock includes the step of directing high intensity white light (radiation) at the rock to induce thermal stress sufficient to fracture the rock. The intensity of the energy source may be varied to control the manner in which the rock fractures. An approach for generating high intensity white light includes an elongate arc chamber and an elongate concave reflector. The arc chamber and reflector may be shielded from airborne particulate matter by an air shield or a rotating or reciprocating translucent shield.